GUIDELINE

SUBJECT: Business Resumption, Contingency and Disaster Recover Planning

APPLICATION: Executive Branch Departments and Sub-units

PURPOSE: This guideline provides for the establishment of business resumption, contingency and disaster recovery plans to facilitate the continuation of critical State services when processes are faced with unplanned interruptions.

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SUMMARY: This guideline provides guidance and details the steps necessary to establish comprehensive agency based business resumption, contingency and disaster recovery plan based on critical services identified by State agencies.
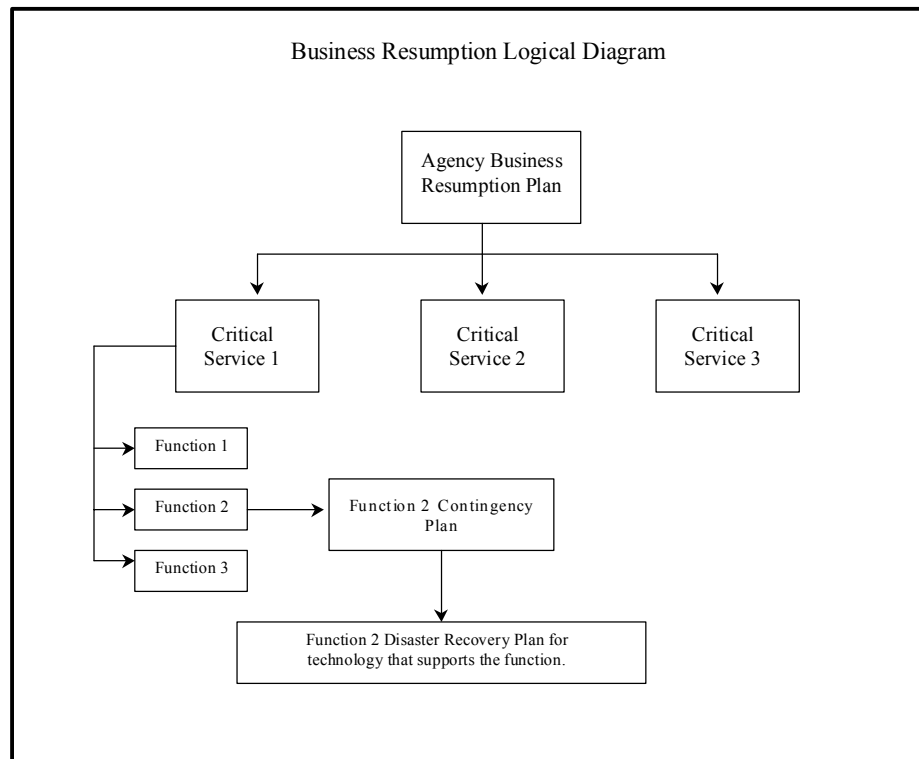
APPLICABLE FORMS: None

PROCEDURES:

General Information: This guideline identifies the components of an enterprise business resumption plan and shall integrate and reconcile with agency plans for business resumption, contingency planning and disaster recovery. All plans shall be tested on semi-annual bases with interim testing performed to integrate newly developed systems and processes. All test results, logs and modifications shall be documented and reincorporated into the original documentation. Steps describing this development process are detailed in the State of Michigan, "Business Resumption Outline" a supplemental document for this guideline. Definitions and outlines below should be followed when planning and preparing for business resumption, contingency planning and disaster recovery.

1. Definitions:
   a. A "business resumption plan" addresses how critical State services will operate in the face of one or more disasters. The "business resumption plan" is comprised of one or more contingency plan, disaster recovery plan and incorporates an implementation structure.
   b. "Contingency plans" address how the operation of a critical service will be addressed in the case of a disaster.
   c. A "critical state service" is one where the failure to provide the function for 0 to 5 days will
      i. endanger public health or safety,
      ii. adversely affect payments to the public, vendors, or state employees,
      iii. adversely affect public resources, or

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iv. render a State agency inoperable for service provisions.
d. A critical service may include:
  i. A key supplier of goods or services (such as a fuel oil supplier, a state contractor providing services to families and children, another state agency, or a federal or local government entity);
  ii. A building or facility (such as a state-operated medical facility or state-occupied office building);
  iii. An information technology system (such as a computer application, router, telephone system or 911 system);
  iv. A piece of equipment (such as a telephone, fax machine, or ventilator); or
  v. Key Personnel (such as prison guards or essential state personnel).
2. Planning assumptions concerning risks due to the external threats (power outages, water, telecommunications, etc.) will be considered and detailed for compensating actions. Emergency Management and the Department of Information Technology shall be responsible for establishing a centralized coordination point of contact and for facilitation of a State Technology action response plan. Emergency Management and State agencies shall be responsible for establishing coordination and facilitation of agency action response plans. State agencies shall be responsible for provision of business resumption, contingency and disaster recovery plans to Emergency Management and the Department of Information Technology.

Business Resumption Logical Diagram

Agency Business Resumption Plan

Critical Service 1   Critical Service 2   Critical Service 3

Function 1

Function 2   Function 2 Contingency Plan

Function 3

Function 2 Disaster Recovery Plan for technology that supports the function.

Resumption Planning:

Development of Business Resumption Plans. Agencies shall use the following outline in the development of their business resumption plan. One plan needs to be developed that includes all critical services.

1. **A description of the problem.** This section should answer the following questions
   i. what specific critical service will be affected;
   ii. how will it be affected;
   iii. who (specifically) will be affected;
   iv. approximately how many will be affected; and
   v. what locations will be affected.
2. **Plan objectives.** A brief description of why the business resumption plan is needed and what will be accomplished by its deployment.
3. **Criteria for invoking the plan.** Define the circumstances that will trigger implementation of the business resumption plan.
4. **The expected life of the plan.** The issue here is how long operations can continue (or are expected to continue) in resumption mode.
5. **A description of roles, responsibilities and authority.** Each objective shall contain a detailed (step-by-step) plan for its implementation and necessary authority shall be provided to appropriate staff to ensure its implementation and success.
6. **The specific procedures for invoking resumption mode.** This section should describe the circumstances that will trigger implementation of the resumption mode operation. They shall be detailed, step-by-step procedures and shall include notification procedures (who needs to be notified and how the notification will occur).
7. **The specific procedures for operating in resumption mode.** This section should describe how the essential function would operate, including detailed, step-by-step procedures.
8. **A description of the resource plan for operating in resumption mode.** This section shall include a discussion of staffing, scheduling, materials, suppliers, facilities, temporary hardware/ software/equipment, and communications to continue the essential function.
9. **A description of the criteria for returning to normal operating mode.** Define the circumstances that will trigger the end of the resumption mode.
10. **The specific procedures for returning to normal operating mode.** These shall be detailed, step-by-step procedures.

Contingency Planning:

Development of critical service contingency plans. Agencies shall use the following outline in the development of their contingency plans. One plan shall be developed for each function that supports the critical service. If a function supports more than one critical service within an agency, in most cases, only one contingency plan that incorporates all services will need to be developed.

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Contingency plans shall be incorporated into the business resumption plan for the critical service that the function supports.

1. **A description of the problem.** This section should answer the following questions
     i.   what critical service and support function will be affected;
     ii. how the critical service will be affected;
     iii. how the support function(s) will be affected;
     iv. who (specifically) will be affected; and
     v.   what locations will be affected.
2. **Plan objectives.** A brief description of why the support function contingency plan is needed and what will be accomplished by its deployment.
3. **Criteria for invoking the plan.** Define the circumstances that will trigger implementation of the function contingency plan.
4. **The expected life of the contingency plan.** The issue here is how long operations can continue (or are expected to continue) in a contingency mode.
5. **A description of roles, responsibilities and authority.** Each objective shall contain a detailed (step-by-step) plan for its implementation and necessary authority shall be provided to appropriate staff to ensure its implementation and success.
6. **The specific procedures for invoking contingency mode.** This section should describe the circumstances that will trigger implementation of the contingency mode operation. These shall be detailed, step-by-step procedures and shall include notification procedures (who needs to be notified and how the notification will occur).
7. **The specific procedures for operating in contingency mode.** This section should describe how the function would operate, including detailed, step-by-step procedures.
8. **A description of the resource plan for operating in contingency mode.** This section shall include a discussion of staffing, scheduling, materials; suppliers, facilities, temporary hardware/software/equipment, and communications needed to operate in contingency mode.
9. **A description of the criteria for returning to normal operating mode.** Define the circumstances that will trigger the end of contingency mode.
10. **The specific procedures for returning to normal operating mode.** These shall be detailed, step-by-step procedures.
11. **The specific procedures for recovering lost or damaged data.** These shall be detailed, step-by-step procedures in the event of lost information or data.

Technology
Disaster Recovery:

Development of Technology Disaster Recovery Plans. Agencies shall use the following outline in the development of their technology disaster recovery plans. One plan shall be developed for each technology platform that incorporates all applications, functions and processes supported; and external networks utilized from that platform.

1. **Description of platform.** This section should identify the platform, external networks and all applications, functions and processes support for critical services.

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2. **Platform priority list.** List detailing the order of priority for recovery of applications, functions and processes. All dependencies should be identified and incorporated.
3. **Description of applications, functions and processes.** This section should answer the following questions
    i.   what application, function or process is affected;
    ii.   what is the purpose of the application, function or process;
    iii. what assumptions are established for operational parameters;
    iv.   what data retention is required;
    v.   what dependencies exist; and
    vi.   Responsibility contact information.
4. **Process flowchart.** Chart depicting processing (process flows, save processes, backup processes) of application, function or process.
5. **Disaster recovery restoration process.** Outline of how disaster restoration process occurs including all operational requirements.

Documentation Outline:

1. Business Resumption Plan Organization Chart of key participants
2. Critical Service
    2.1   Name and title of responsible person(s).
    2.2   Brief description of methods used to determine critical service.
    2.3   Functions that supports critical service.
        2.3.1   Responsible person(s) and duties. Identify project manager or team leader, if appropriate.
        2.3.2   Priority ranking of critical services.
        2.3.3   Contingency Plans for functions that support critical services.
            2.3.3.1   Responsible person(s) and duties. Identify project manager or team leader, if appropriate.
            2.3.3.2   Determination of potential alternatives.
            2.3.3.3   Documentation providing basis for chosen alternatives.
            2.3.3.4   Contingency Plan Testing.
                2.3.3.4.1 Responsible person(s) and duties. Identify project manager or team leader, if appropriate.
                2.3.3.4.2 Test procedures including discussion of what was tested, what was not, and why.
                2.3.3.4.3 Specific findings and recommendations resulting from the test.
                2.3.3.4.4 Documentation of re-tests or explanation why re-tests not done.
            2.3.3.5   Contingency Plan Revision.
                2.3.3.5.1 Responsible person(s) and duties. Identify project manager or team leader, if appropriate.

          2.3.3.5.2 Determination of potential alternative changes to plan as a result of test.

          2.3.3.5.3 Documentation providing basis for chosen alternative.

3.   Business Resumption Plan for each critical service

    3.1   Responsible person(s) and duties. Identify project manager or team leader, if appropriate.

    3.2   Determination of potential alternatives

    3.3   Documentation of potential alternatives

        3.3.1   Testing of business resumption plan

        3.3.2   Responsible person(s) and duties. Identify project manager or team leader, if appropriate.

        3.3.3   Test procedures including discussion of what was tested, what was not and why.

        3.3.4   Specific findings and recommendations resulting from the test.

        3.3.5   Documentation of re-tests or explanation why re-tests not done.

          3.3.5.1   Business Resumption Plan Revision.

            3.3.5.1.1 Responsible person(s). Identify project manager or team leader, if appropriate.

            3.3.5.1.2 Determination of potential alternative changes to plan as result of test.

            3.3.5.1.3 Documentation providing basis for chosen alternatives.

4.   Technology Disaster Recovery Plans

    4.1   Responsible person(s) and duties. Identify project manager or team leader, if appropriate.

    4.2   Determination of potential alternatives

    4.3   Documentation of potential alternatives

        4.3.1   Testing of disaster recovery plan

        4.3.2   Responsible person(s) and duties. Identify project manager or team leader, if appropriate.

        4.3.3   Test procedures including discussion of what was tested, what was not and why.

        4.3.4   Specific findings and recommendations resulting from the test.

        4.3.5   Documentation of re-tests or explanation why re-tests not done.

          4.3.5.1   Disaster Recovery Plan Revision.

            4.3.5.1.1 Responsible person(s). Identify project manager or team leader, if appropriate.

            4.3.5.1.2 Determination of potential alternative changes to plan as result of test.

            4.3.5.1.3 Documentation providing basis for chosen alternatives.

Testing: Agencies shall test business resumption, contingency and disaster recovery plans on a <u>semi-annual published schedule (and interim basis as needed)</u>. The testing

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review cycle is dependent on the nature of the critical function and on the impact of new processes, systems or modifications, more frequent testing may be required. Acceptance criteria for testing shall be established by the agencies and used to validate the plans. Areas requiring non-agency personnel or services shall be identified along with the nature of the required services or needs. To the extent feasible, agencies shall coordinate with local and federal agencies' planning efforts and build communication and operational linkages, where appropriate, in their plans.

Agency:

Agencies shall (1) identify and prioritize their critical services using the definition listed in "General Information, 1.c". Services meeting any of these criteria shall be considered State critical. (2) Prepare a high-level process matrix for each identified service. As part of the development of this matrix, Agencies shall assess the threats they face due to any unplanned problem or threat from both internal (under agencies' direct control) and external sources (service and resource providers beyond agencies' control). (3) Prioritize, based on the outcome from item number one and two above. Business Resumption plans shall be established for all agency critical services identified. (4) Complete their Business Resumption Process by the end of each fiscal year, September 30th.

Any and all projects, consulting requests, equipment and software acquisition requests, or ITB's relating to Business Resumption, Contingency or Disaster Recovery Planing will be reviewed for compliance with this guideline by the Standards Division, Office of Information Technology Solutions (OITS).

DMB:

The OITS Standards Division and the Enterprise Standards Review Team (ESRT) will review this guideline on a continuing basis and make recommendations to the State Chief Information Officer. An appropriate group of staff, representing a wide-range of state agencies, will review and possibly revise this guideline as often as needed.

The Office of Purchasing shall not approve any business resumption acquisition or purchase request without confirmation from the Standards Division of OITS that such request is in compliance with the guideline.

Exceptions from this guideline for reasons other than those outlined above will be made through the exception handling process described in the Exception Process Template.

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